

METROSPEC TECHNOLOGY LLC,)	
)	
)	
)	
Plaintiff,)	Civil Action No. _____
v.)	
)	JURY TRIAL REQUESTED
HOLECTRON LED TECH,)	
)	
Defendant.)	
)	
)	

Plaintiff MetroSpec Technology LLC (“MetroSpec”), for its Complaint for patent infringement against Hololectron LED Tech (“Hololectron”), alleges as follows.

1. MetroSpec is a limited liability corporation organized under the laws of the state of Minnesota, with its principal place of business at 2401 Pilot Knob Road, Suite 108, Mendota Heights, Minnesota, 55120.

2. On information and belief, Holecron is a Lithuanian company with its principal place of business located at Pramonės 141, 11115 Vilnius, Lithuania.

JURISDICTION AND VENUE

3. This is a civil action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code Section 1 *et. seq.*

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Holecron pursuant to Federal Rule of Civil Procedure 4(k)(2). On information and belief, Holecron is not subject to jurisdiction in any state's courts of general jurisdiction. MetroSpec's claim arises under Federal law and exercising jurisdiction is consistent with the United States Constitution. On information and belief, Holecron has purposefully directed its activities at residents of the United States by bringing its products into the United States and displaying its products at trade shows in the United States, including in Los Angeles and New York City. Specific jurisdiction exists over Holecron because it has committed acts giving rise to this action in the United States, including, but not limited to, importing the accused products into the United States and displaying the accused products at trade shows within the United States for the purpose of generating business. Holecron has established minimum contacts within the United States such that the exercise of jurisdiction over Holecron would not offend traditional notions of fair play and justice.

6. Venue is proper in this District under 28 U.S.C. §§ 1391(b)(3).

METROSPEC AND THE PATENTS-IN-SUIT

7. MetroSpec was founded in 2001. It has developed and sells to customers in the lighting industry a unique LED light circuit technology called FlexRad®. FlexRad®

is a high intensity flexible light circuit incorporating LEDs. Because FlexRad® is customizable to any shape and size, lighting manufacturers can use it to create lighting fixtures of their design.

8. Since MetroSpec's inception, its business has been centered on technological innovation. MetroSpec has taken steps to protect its unique FlexRad® product. As a part of that effort, MetroSpec has obtained several United States patents covering various aspects of its FlexRad® product.

9. On July 19, 2011, the United States Patent and Trademark Office (the "PTO") issued Patent No. 7,980,863 ("the '863 Patent"), entitled "Printed Circuit Board Flexible Interconnect Design," to Henry V. Holec and William Todd Crandell. A true and correct copy of the '863 Patent is attached hereto as **Exhibit A**.

10. On August 30, 2011, the PTO issued Patent No. 8,007,286 ("the '286 Patent"), entitled "Circuit Boards Interconnected by Overlapping Plated Through Holes Portions," to Henry V. Holec and William Todd Crandell. A true and correct copy of the '863 Patent is attached hereto as **Exhibit B**.

11. On March 27, 2012, the PTO issued Patent No. 8,143,631 ("the '631 Patent"), entitled "Layered Structure for Use With High Power Light Emitting Diode Systems," to William Todd Crandell, Anthony Mitchell Johnson, Tony Stephen Schweitzer, and H. Vic Holec. A true and correct copy of the '631 Patent is attached hereto as **Exhibit C**.

12. On August 6, 2013, the PTO issued Patent No. 8,500,456 ("the '456 Patent"), entitled "Interconnectable Circuit Boards," to Henry V. Holec and William

Todd Crandell. A true and correct copy of the '863 Patent is attached hereto as **Exhibit D**.

13. On September 3, 2013, the PTO issued Patent No. 8,525,193 ("the '193 Patent"), entitled "Layered Structure for Use With High Power Light Emitting Diode Systems," to William Todd Crandell, Anthony Mitchell Johnson, Tony Stephen Schweitzer, and H. Vic Holec. A true and correct copy of the '193 Patent is attached hereto as **Exhibit E**.

14. On March 3, 2015, the PTO issued Patent No. 8,968,006 ("the '006 Patent"), entitled "Circuit Board Having a Plated Through Hole Passing Through Conductive Pads on Top and Bottom Sides of the Board and the Board," to Henry V. Holec and William Todd Crandell. A true and correct copy of the '863 Patent is attached hereto as **Exhibit F**.

15. On May 17, 2016, the PTO issued Patent No. 9,341,355 ("the '355 Patent"), entitled "Layered Structure for Use With High Power Light Emitting Diode Systems," to William Todd Crandell, Anthony Mitchell Johnson, Tony Stephen Schweitzer, and H. Vic Holec. A true and correct copy of the '355 Patent is attached hereto as **Exhibit G**.

16. On May 31, 2016, the PTO issued Patent No. 9,357,639 ("the '639 Patent"), entitled "Circuit Board Having a Plated Through Hole Through a Conductive Pad," to Henry V. Holec and William Todd Crandell. A true and correct copy of the '863 Patent is attached hereto as **Exhibit H**.

17. MetroSpec is the owner by assignment of all rights, title and interest to and

in the '863 Patent, the '286 Patent, the '631 Patent, the '456 Patent, the '193 Patent, the '006 Patent, the '355 Patent, and the '639 Patent.

COUNT I
(Infringement of the '863 Patent)

18. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-17.

19. Holecron has directly infringed at least claims 1-4 and 6-8 of the '863 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the FlexLine-56 line of products, the FlexLine-112 line of products, the FlexLine-140 line of products, the TW-56 line of products, and the RGBW-48 line of products (collectively, the "First Infringing Products"). A true and correct copy of Holecron's 2017 brochure, titled "Linear Lighting" is attached hereto as **Exhibit I**. For example, each of the First Infringing Products comprises "[a] circuit board interconnect" comprised of "a first circuit board having a first conductive layer located on top of an electrical isolating material and a second separate conductive layer located below the electrical isolating material, a metal pad and a plated through hole within the metal pad on the first circuit board, the through hole providing a passage for solder to connect the first circuit board to a second circuit board" and a "second circuit board having a first conductive layer located on top of an electrical isolating material and a second separate conductive layer located below the electrical isolating material, a metal pad able to couple to the first circuit board

in an overlapping fashion when solder is passed through the plated through hole such that the bottom surface of the first circuit board is coupled to the top surface of the second circuit board,” as required in claim 1 of the ‘863 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

20. Holecron has also directly infringed at least claims 9, 10, and 12 of the ‘863 Patent pursuant to 35 U.S.C. § 271(g), literally or under the doctrine of equivalents, by importing into the United States and/or offering to sell, selling, and/or using in the United States, without authority, products that are made by a process that infringes such claims, including the First Infringing Products. For example, based on the apparent structure of the First Infringing Products, each of the First Infringing Products would be made using the method of “placing a first circuit board on top of a second circuit board, the first circuit board comprising a first conductive layer located on top of an electrical isolating material and a second separate conductive layer located below the electrical isolating material, a metal pad and a plated through hole within the metal pad on the first circuit board, the through hole providing a passage for solder to connect the first circuit board to the second circuit board, the second circuit board comprising a first conductive layer located on top of an electrical isolating material,” “heating solder to flow through the plated through hole,” and “allowing solder to flow and couple the first circuit board and the second circuit board,” as required in claim 9 of the ‘863 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

21. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘863 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless

this Court enjoins Holecron from infringing the ‘863 Patent.

COUNT II
(Infringement of the ‘286 Patent)

22. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-21.

23. Holecron has directly infringed at least claims 1, 3, 5-10, 12, 15, 16, and 18-20 of the ‘286 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing Products is “[a]n interconnectable circuit board array” comprised of “a plurality of interconnectable circuit boards, each circuit board comprising[:]” “a distal end having a first electrically conductive pad located on a top of the circuit board,” “a plated through hole located on the conductive pad, the through hole passes through a conductive layer of the circuit board, an insulative layer of the circuit board and a second separate conductive layer of the circuit board, the plated through hole allowing solder to flow from the conductive layer to the second conductive layer,” “a second electrically conductive pad coupled to the plated through hole, the second electrically conductive pad capable of coupling with an electrical component,” and “a proximal end having a third electrically conductive pad attached to the top of the circuit board,” as required in claim 1 of the ‘286 Patent. Moreover, for each of the First Infringing Products, “each of the plurality of interconnectable circuit boards includes a portion that overlaps with another

interconnectable circuit board to form an overlapping joint and a portion that does not overlap with another interconnectable circuit board,” as also required in claim 1 of the ‘286 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

24. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘286 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘286 Patent.

COUNT III
(Infringement of the ‘631 Patent)

25. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-24.

26. Holecron has directly infringed at least claims 1, 3, and 4 of the ‘631 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the FlexLine-56-14 line of products, FlexLine-56-23 line of products, the FlexLine-112-14 line of products, the FlexLine-112-19 line of products, the FlexLine-112-23 line of products, the FlexLine-140-14 line of products, the FlexLine-140-19 line of products, the FlexLine-140-24 line of products, the TW-56-19 line of products, and the RGBW-48-24 line of products (collectively, the “Second Infringing Products”). For example, each of the Second Infringing Products is “[a] layered structure for use with a high power light emitting diode system” comprised of “an electrically insulating intermediate layer interconnecting a top layer and a bottom layer” with “the top layer, the intermediate

layer, and the bottom layer forming an at least semi-flexible elongate member having a longitudinal axis and a plurality of positions spaced along the longitudinal axis, the at least semi-flexible elongate member being bendable laterally proximate the plurality of positions spaced along the longitudinal axis to a radius of 6 inches, twistable relative to its longitudinal axis up to 10 degrees per inch, and bendable to conform to localized heat sink surface flatness variations having a radius of 1 inch,” and with “the top layer being pre-populated with electrical components for high wattage, the electrical components including at least one high wattage light emitting diode at least 1.0 Watt per 0.8 inch squared,” as required in claim 1 of the ‘631 Patent. See **Exhibit I**, pp. 20-23, 32-37, 40-43, 48-53, 58-59, and 66-67.

27. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘631 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘631 Patent.

COUNT IV
(Infringement of the ‘456 Patent)

28. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-27.

29. Holecron has directly infringed at least claims 9 and 11-14 of the ‘456 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing Products comprises

“[a]n apparatus for connecting circuit boards” including “a first circuit board having a first electrically conductive pad located on a top of the first circuit board,” “a plated through hole on the first conductive pad which passes through the circuit board,” “a second electrically conductive pad coupled to the plated through hole located on a bottom of the first circuit board,” and “a second circuit board having a third electrically conductive pad on a top of the second circuit board, wherein the first circuit board can be placed upon the second circuit board with the second conductive pad and third conductive pad aligned to create an electrical connection between the first circuit board and the second circuit board,” as required in claim 9 of the ‘456 Patent. Moreover, each of the First Infringing Products comprises “an adhesive material disposed under the first and second circuit boards,” as also required in claim 9 of the ‘456 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

30. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘456 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘456 Patent.

COUNT V
(Infringement of the ‘193 Patent)

31. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-30.

32. Holecron has directly infringed at least claims 1, 7, and 16 of the ‘193 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into

the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing Products is “[a] layered structure for use with a light emitting diode system” comprised of “an electrically insulating intermediate layer interconnecting a top layer and a bottom layer,” with “the top layer, the intermediate layer, and the bottom layer forming an at least semi-flexible elongate member having a longitudinal axis, the at least semi-flexible elongate member having sufficient flexibility to be bent along the longitudinal axis to a radius of curvature of 6 inches,” and with “the top layer being pre-populated with electrical components, the electrical components including at least one light emitting diode,” as required in claim 1 of the ‘193 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

33. Holectron has directly infringed at least claims 8 and 24 of the ‘193 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the FlexLine-56-9 line of products, FlexLine-56-14 line of products, FlexLine-56-23 line of products, the FlexLine-112-9 line of products, the FlexLine-112-14 line of products, the FlexLine-112-19 line of products, the FlexLine-112-23 line of products, the FlexLine-140-9 line of products, the FlexLine-140-14 line of products, the FlexLine-140-19 line of products, the FlexLine-140-24 line of products, the TW-56-19 line of products, the RGBW-48-19 line of products, and the RGBW-48-24 line of products (collectively, the “Third Infringing Products”). For example, in addition to the allegation in Paragraph 32, each of the Third Infringing Products operate at “greater than 0.5 Watt per 0.75 inch

squared,” as required by claim 8 of the ‘193 Patent. See **Exhibit I**, pp. 18-23, 26-27, 30-43, 46-53, 58-59, and 64-67.

34. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘193 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘193 Patent.

COUNT VI
(Infringement of the ‘006 Patent)

35. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-34.

36. Holecron has directly infringed at least claims 1, 3, 5-8, 10, and 12-16 of the ‘006 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing Products is “[a]n interconnectable circuit board” comprised of “a distal end having a first electrically conductive pad located on a top of the circuit board,” “a plated through hole on the conductive pad which passes through a first conductive layer of the circuit board, a second conductive layer of the circuit board, and an insulative layer of the circuit board disposed between the first conductive layer and the second conductive layer,” “a second electrically conductive pad located on a bottom of the circuit board, the second electrically conductive pad coupled to the plated through hole,” and “a proximal end having a third electrically conductive pad attached to the top of the circuit board,” as

required in claim 1 of the '006 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

37. MetroSpec has suffered damages as a result of Holecron's infringement of the '006 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the '006 Patent.

COUNT VII
(Infringement of the '355 Patent)

38. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-37.

39. Holecron has directly infringed at least claims 1, 4, 7, 9, and 14 of the '355 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing Products is "[a] layered structure for use with a light emitting diode system" comprised of "an electrically insulating intermediate layer disposed between a top layer and a bottom layer," with "the top layer, the intermediate layer, and the bottom layer forming an at least semi-flexible elongate member having a longitudinal axis, the at least semi-flexible elongate member having sufficient flexibility to be bent along the longitudinal axis to a radius of curvature of 6 inches," with "the top layer comprising electrical circuits and a protective coating," and with "the top layer being pre-populated with electrical components, the electrical

components including at least one light emitting diode,” as required in claim 1 of the ‘355 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

40. Holecron has directly infringed at least claims 8 and 15 of the ‘355 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the Third Infringing Products. For example, in addition to the allegation in Paragraph 39, each of the Third Infringing Products operate at “greater than 0.5 Watt per 0.75 inch squared,” as required by claim 8 of the ‘355 Patent. See **Exhibit I**, pp. 18-23, 26-27, 30-43, 46-53, 58-59, and 64-67.

41. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘355 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘355 Patent.

COUNT VIII
(Infringement of the ‘639 Patent)

42. MetroSpec realleges and incorporates herein the allegations set forth in Paragraphs 1-41.

43. Holecron has directly infringed at least claims 1, 3, 5-8, 10, and 12-16 of the ‘639 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States and/or importing into the United States, without authority, products that infringe such claims, including the First Infringing Products. For example, each of the First Infringing

Products is “[a]n interconnectable circuit board” comprised of “a distal end having a first electrically conductive pad located on a top of the circuit board,” “a plated through hole on the conductive pad which passes through a conductive layer of the circuit board and an insulative layer of the circuit board,” “a second electrically conductive pad coupled to the plated through hole,” “and a proximal end having a third electrically conductive pad attached to the top of the circuit board,” as required in claim 1 of the ‘639 Patent. See **Exhibit I**, pp. 16-27, 30-43, 46-53, 56-59, and 62-67.

44. MetroSpec has suffered damages as a result of Holecron’s infringement of the ‘639 Patent. In addition, MetroSpec will continue to suffer irreparable harm unless this Court enjoins Holecron from infringing the ‘639 Patent.

PRAYER FOR RELIEF

For the above reasons, MetroSpec respectfully requests that this Court grant the following relief in its favor and against Holecron:

- (a) A judgment in favor of MetroSpec that Holecron has infringed (either literally or under the doctrine of equivalents) one or more claims of the ‘863 Patent, the ‘286 Patent, the ‘631 Patent, the ‘456 Patent, the ‘193 Patent, the ‘006 Patent, the ‘355 Patent, and the ‘639 Patent;
- (b) A permanent injunction enjoining Holecron and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with it, from infringing the ‘863 Patent, the ‘286 Patent, the ‘631 Patent, the ‘456 Patent, the ‘193 Patent, the ‘006 Patent, the ‘355 Patent, and the ‘639

Patent;

- (c) A judgment and order requiring Holecron to pay to MetroSpec its damages, costs, expenses, and pre-judgment and post-judgment interest for Holecron's infringement of the '863 Patent, the '286 Patent, the '631 Patent, the '456 Patent, the '193 Patent, the '006 Patent, the '355 Patent, and the '639 Patent; and
- (d) Any and all such further relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, MetroSpec demands a trial by jury of this action.

Dated: October 9, 2017

WINTHROP & WEINSTINE, P.A.

By s/Paul J. Robbennolt
Paul J. Robbennolt #240497
Erin O. Dungan #386430
Nathan J. Witzany #387121
WINTHROP & WEINSTINE
225 South Sixth Street, Suite 3500
Minneapolis, MN 55402
Telephone: (612) 604-6400
Facsimile: (612) 604-6800
probbennolt@winthrop.com
edungan@winthrop.com
nwitzany@winthrop.com

Attorneys for Plaintiff MetroSpec
Technology LLC